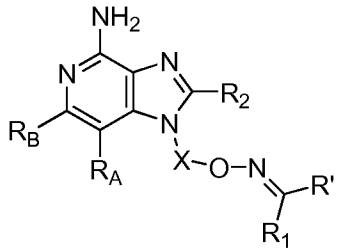
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.-17. (Canceled)

18. (Currently amended) A compound of the formula (II):



II

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

heteroaryl,

heteroarylalkylenyl,

heterocyclyl,

heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,

haloalkyl,

hydroxyalkyl,

alkoxy,

dialkylamino,

-S(O)$_{0-2}$-alkyl,

-S(O)$_{0-2}$-aryl,

-NH-S(O)$_2$-alkyl,

-NH-S(O)$_2$-aryl,

haloalkoxy,

halogen,

nitrile,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

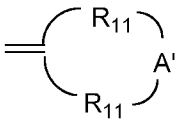
-C(O)-N(R_8)$_2$,

-N(R_8)-C(O)-alkyl,

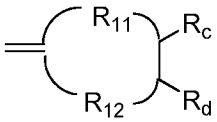
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_A and R_B are ~~each independently selected from the group consisting of:~~

~~hydrogen,~~

~~halogen,~~

~~alkyl,~~

~~alkenyl,~~

~~alkoxy,~~

~~alkylthio, and~~

~~$-N(R_9)_2$;~~

~~or when~~ taken together~~, R_A and R_B~~ to form a 6-membered fused aryl ring ~~or heteroaryl ring containing one heteroatom selected from the group consisting of N and S~~, wherein the aryl ~~or heteroaryl~~ ring is unsubstituted or substituted by one or more R groups, or substituted by one R_3 group, or substituted by one R_3 group and one R group;

~~or when taken together, R_A and R_B form a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R groups;~~

R is selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

R_2 is selected from the group consisting of:

-hydrogen,

-alkyl, and

-alkoxyalkyl;

R_3 is ~~selected from the group consisting of:~~

-Z-R_4[[,]];

~~-Z-X'-R_4;~~

~~-Z-X'-Y-R_4; and~~

~~-Z-X'-R_5;~~

~~each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;~~

~~each Y is independently selected from the group consisting of:~~

~~-S(O)$_{0-2}$-,~~

~~-S(O)$_2$-N(R_8)-,~~

~~-C(R_6)-,~~

~~-C(R_6)-O-,~~

~~-O-C(R_6)-,~~

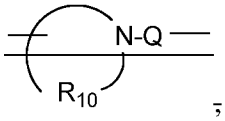
~~-O-C(O)-O-,~~

~~-N(R_8)-Q-,~~

~~-C(R_6)-N(R_8)-,~~

~~-O-C(R_6)-N(R_8)-,~~

~~-C(R_6)-N(OR_9)-,~~



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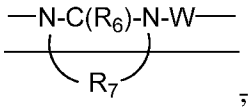

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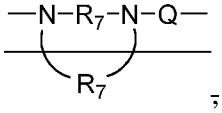

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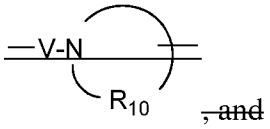

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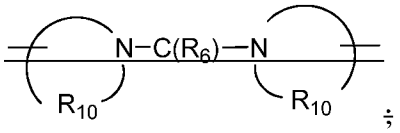
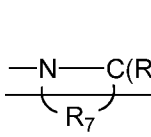


;

Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

~~each R_5 is independently selected from the group consisting of:~~



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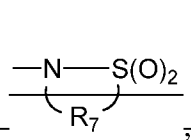

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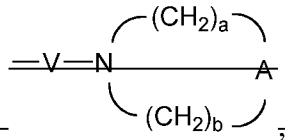
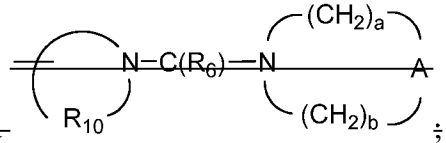


~~, and~~



;

each R_6 is independently selected from the group consisting of =O and =S;

~~each R_7 is independently C_{2-7} alkylene;~~

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

~~each R_{10} is independently C_{3-8} alkylene;~~

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

~~each A is independently selected from the group consisting of -O-, -C(O)-, -CH$_2$-, -S(O)$_{0-2}$-, and -N(R$_4$)-;~~

A' is selected from the group consisting of -O-, ~~-S(O)$_{0-2}$-~~, -N(-Q-R$_4$)-, and -CH$_2$-; and

each Q is independently selected from the group consisting of a bond[[,]] and -C(R$_6$)-~~,-C(R$_6$)-C(R$_6$)-, -S(O)$_2$-, -C(R$_6$)-N(R$_8$)-W-, -S(O)$_2$-N(R$_8$)-, -C(R$_6$)-O-, and -C(R$_6$)-N(OR$_9$)-~~;

~~each V is independently selected from the group consisting of -C(R$_6$)-, -O-C(R$_6$)-, -N(R$_8$)-C(R$_6$)-, and -S(O)$_2$-;~~

~~each W is independently selected from the group consisting of a bond, -C(O)-, and -(O)$_2$-;~~

~~a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;~~

or a pharmaceutically acceptable salt thereof.

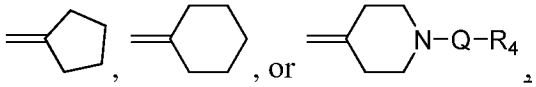
19. (Canceled)

20. (Previously presented) The compound or salt of claim 18 wherein X is -C_{3-5} alkylene- or -$CH_2CH_2OCH_2CH_2$-.

21. (Previously presented) The compound or salt of claim 18 wherein at least one of R' or R_1 is hydrogen.

22. (Previously presented) The compound or salt of claim 18 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

23-25. (Canceled)

26. (Currently amended) The compound or salt of claim 18 wherein R' and R_1 join together to form a ~~the~~ ring system of the formula: ~~is~~ 

wherein Q is a bond or -C(O)-, and R_4 is alkyl.

27. (Previously presented) The compound or salt of claim 18 wherein R_1 and R' are each methyl.

28. (Canceled)

29. (Canceled)

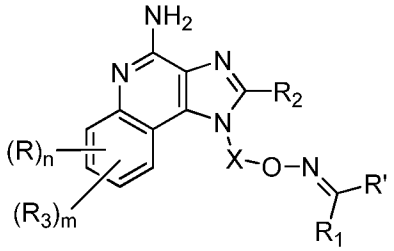
30. (Previously presented) The compound or salt of claim 18 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, methoxyethyl, and methoxymethyl.

31. (Canceled)

32. (Currently amended) The compound or salt of claim 18 wherein R_A and R_B form a fused aryl ring ~~or heteroaryl ring containing one N~~, wherein the aryl ring ~~or heteroaryl ring~~ is unsubstituted.

33. (Canceled)

34. (Currently amended) A compound of the formula (III):



III

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

-N(R_9)$_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

heteroaryl,

heteroarylalkylenyl,

heterocyclyl,

heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

hydroxyl,

haloalkyl,

hydroxyalkyl,

alkoxy,

dialkylamino,

-S(O)$_{0-2}$-alkyl,

-S(O)$_{0-2}$-aryl,

-NH-S(O)$_2$-alkyl,

-NH-S(O)$_2$-aryl,

haloalkoxy,

halogen,

nitrile,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

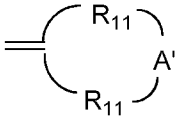
-C(O)-N(R_8)$_2$,

-N(R_8)-C(O)-alkyl,

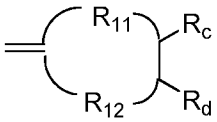
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

-hydrogen,

-alkyl, and

-alkoxyalkyl;

~~R_3 is selected from the group consisting of:~~

~~-Z-R_4;~~

~~-Z-X'-R_4;~~

~~-Z-X'-Y-R_4; and~~

~~-Z-X'-R_5;~~

~~each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;~~

~~each Y is independently selected from the group consisting of:~~

~~-S(O)$_{0-2}$-,~~

~~-S(O)$_2$-N(R_8)-,~~

~~-C(R_6)-,~~

~~-C(R_6)-O-,~~

~~-O-C(R_6)-,~~

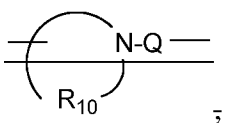
~~-O-C(O)-O-,~~

~~-N(R_8)-Q-,~~

~~-C(R_6)-N(R_8)-,~~

~~-O-C(R_6)-N(R_8)-,~~

~~-C(R_6)-N(OR_9)-,~~



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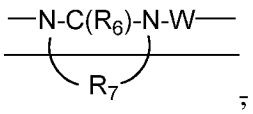

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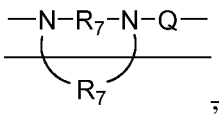

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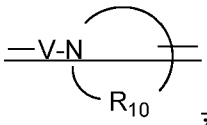
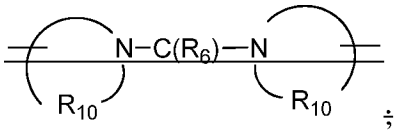


~~, and~~

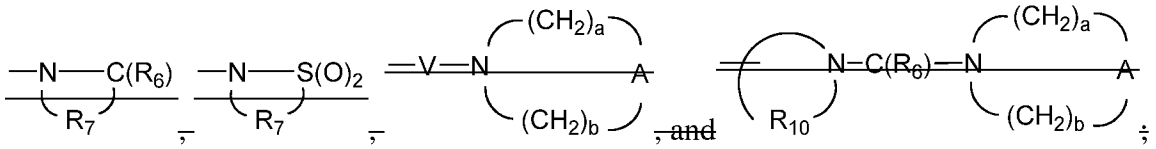


;

~~Z is a bond or –O–;~~

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

~~each R_5 is independently selected from the group consisting of:~~



~~, and~~ ;

each R_6 is independently selected from the group consisting of =O and =S;

~~each R_7 is independently C_{2-7} alkylene;~~

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

~~each R_{10} is independently C_{3-8} alkylene;~~

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

~~each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;~~

A' is selected from the group consisting of -O-, ~~$-S(O)_{0-2}-$~~, -N(-Q-R_4)-, and $-CH_2-$; and

each Q is independently selected from the group consisting of a bond[[,]] and $-C(R_6)-$; ~~,— $C(R_6)C(R_6)$, $S(O)_2$, $C(R_6)N(R_8)W$, $S(O)_2N(R_8)$, $C(R_6)O$, and $C(R_6)N(OR_9)$;~~

~~each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;~~

~~each W is independently selected from the group consisting of a bond, -C(O)-, and $-S(O)_2-$;~~

~~a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;~~

n is an integer from 0 to 4;

and m is 0 ~~or 1, with the proviso that when m is 1, n is 0 or 1~~;

or a pharmaceutically acceptable salt thereof.

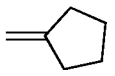
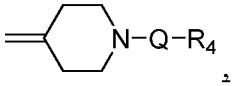
35. (Canceled)

36. (Previously presented) The compound or salt of claim 34 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

37. (Previously presented) The compound or salt of 34 wherein at least one of R' or R_1 is hydrogen.

38. (Previously presented) The compound or salt of claim 34 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroayl, and alkyl are optionally substituted.

39-41. (Canceled)

42. (Currently amended) The compound or salt of claim 34 wherein R' and R_1 join together to form a ~~the~~ ring system of the formula: ~~is~~  ,  , or 

, wherein Q is a bond or -C(O)-, and R_4 is alkyl.

43. (Previously presented) The compound or salt of claim 34 wherein R_1 and R' are each methyl.

44. (Canceled)

45. (Canceled)

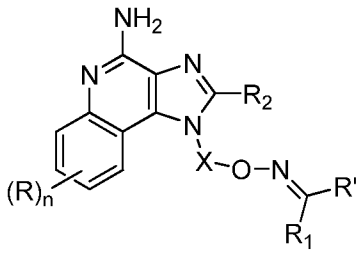
46. (Previously presented) The compound or salt of claim 34 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

47. (Canceled)

48. (Previously presented) The compound of salt of claim 34 wherein m and n are each 0.

49-62. (Canceled)

63. (Currently amended) A compound of the formula (V):



V

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-; R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

alkylene-aryl,

heteroaryl,

heterocyclyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl or heterocyclyl substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,

haloalkyl,

hydroxyalkyl,

-O-alkyl,

-S-alkyl,

-O-haloalkyl,

halogen,

nitrile,

aryl,

heteroaryl,

heterocyclyl,

-O-aryl,

-O-alkylene-aryl,

-C(O)-O-alkyl,

-C(O)-N(R_{8a})$_2$, and -N(R_{8a})-C(O)-alkyl;

or R_1 and R' can join together to form a ring system containing one or two saturated or unsaturated rings optionally including one or more heteroatoms;

n is an integer from 0 to 4;

each R is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxyl, and trifluoromethyl;

R_2 is selected from the group consisting of:

hydrogen,

alkyl, and

alkoxyalkyl;

~~Y" is -O- or -O-S(O)$_{0-2}$-;~~

R_{9a} is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl; or a pharmaceutically acceptable salt thereof.

64.-133. (Canceled)

134. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 18 in combination with a pharmaceutically acceptable carrier.

135. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 18 to the animal.

136. (Withdrawn) A method of treating a viral disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.

137. (Withdrawn) A method of treating a neoplastic disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of claim 18 to the animal.

138. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 34 in combination with a pharmaceutically acceptable carrier.

139. (Canceled)

140. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 34 to the animal.

141. (Canceled)

142. (Withdrawn) A method of treating a viral disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of claim 34 to the animal.

143. (Canceled)

144. (Withdrawn) A method of treating a neoplastic disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of claim 34 to the animal.

145. (Canceled)